



TRAPPER MINING INC.

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January 20, 2023

Ms. Robin Reilley
Environmental Protection Specialist
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

Re: Trapper Mining Inc., Permit No. C-1981-010

Permit Revision PR-11, Response to Adequacy Review No. 1

Dear Ms. Reilley:

Enclosed is our response to your Adequacy Review #1 letter of December 23, 2022 to Trapper's Permit Revision PR-11 application. We have used your original letter as the base format, with our responses following each of your comments where a response was requested.

Trapper will submit adequacy and clarification comments concerning the PR-11 CIRCES Bond Calculation at a later time after further review.

The following revised permit narrative pages are enclosed: 2-122r and 2-122x. The following revised permit tables are enclosed: Table 2.7-20 (page 2) [p. 2-457], Table 3.4-1 [p. 3-28a], Table 3.4-2 [p. 3-28b] and Table 4.8-1 [p. 4-172a]. The following revised maps are enclosed: M13A (sheet 1) and M48A.

Revised page 2-170 states that the permit area was expanded with the PR7 and PR11 revisions and that no previous mining occurred within the pit expansion areas. From Map M4, Life of Mine Plan, submitted with the proposed revision PR11, C Pit was previously mined. DRMS understands that PR11 proposes highwall mining seams in C Pit.

1. Please clarify the following statement with respect to C Pit of:

No previous mining occurred within the pit expansion areas with respect to C Pit.

Trapper Response to Comment 1: C Pit mining is included as part of the proposed PR-11 mine plan. It is not, however, included as part of the PR-11 permit area expansion, which has had no historic mining. The Permit area expansion is north of historic C Pit mining and only includes that area that is new to the permit area. The C Pit area was already included within the existing permit area.

The above rule is adequately addressed **with the exception of:**

2. *Affected area as discussed below in Rule 2.05.3.*

Trapper Response to Comment 2: See Response to Comments 16 and 31.

DRMS is in receipt (7 November 2022), of a letter from History Colorado requesting an additional cultural survey to cover lands previously identified (2020), to have a high potential for having previously unidentified cultural remains that could be impacted by the proposed PR11 application.

3. *Please address History Colorado's concerns and provide DRMS with any outcomes pertinent to the PR11 expansion area.*

Trapper Response to Comment 3: Trapper submitted a letter with attached maps to SHPO in response to their comments on January 17, 2023. SHPO's response is pending.

DRMS is reviewing impacts of renewed mining in the PR11 expansion area as relating to the above rule including information found in the Trapper Mine Permit, specifically regarding drawdown, pit dewatering, rebound of groundwater elevations, impacts to surrounding well and springs and increased permeability.

Adequacy questions relating to the above cited rule may be forthcoming.

Two groundwater monitoring wells for monitoring water level in the Twenty Mile and Middle Sandstone Layers on the Williams Fork Permit are located in the expansion area. These wells and ownership, uses and location information were not specified in the submission, nor on Map M31. Also located in the expansion area is the Lux well. Please see rules 2.05.3(6) and 4.05.14 below for additional references to the Williams Fork monitoring wells.

4. *Please, provide information pertaining to the above mentioned wells and how Trapper Mine Inc. will mitigate mining impacts to each of them.*

Trapper Response to Comment 4: The Trapper permit addresses impacts to neighboring wells, water rights and the hydrologic balance in several sections. Specifically, analysis was included in the PR-11 application through updates to sections 2.7.4.1, 2.7.5.2d, 4.8.2.2, and 4.8.5.2. The Lux residence potable well is actually located on their private property, north of the proposed permit expansion boundary. The location given is what is on record for their water rights filing with DWR. While Trapper will not directly disturb this well with surface impacts, it is possible the highwall mining of the F seam in I West-Pit may affect the water quality of this well, however, impacts may be negligible. If impacts are noted, Trapper has committed to replace any vested water right or source if harmed.

The noted monitoring wells, (Peabody Energy, Williams Fork Mines; TR-4 and 84-01) located within the proposed permit expansion area have been noted on Trappers long range planning maps and attached revised M13A (sheet 1). As these wells are not registered with DWR as water wells or monitor wells (Rule 2.04.7(1)(b)), they were not located or added to the M31 Water Rights map. As these wells are monitoring sandstone aquifers several hundred feet below our deepest coal seams, no impacts are expected to those aquifers through mining at Trapper. When I West-Pit is developed, our preferred development plan at this

time is to avoid adjacent archeological sites and these monitoring wells entirely with pit disturbance and highwall mining at the western extent of the pit. If Trapper must disturb these structures, they will be replaced by Trapper Mining Inc. for Peabody Energy.

DRMS also notes that no major undisturbed drainage exists within the permit boundary however, no discussion was included regarding Rule 2.04.7(3), regarding alternative water supply in the expansion area.

Trapper Response to Comment: Alternative water supplies will be handled in the expansion area in the same fashion as any other area of the permit area, either with well replacement or surface water rights most likely from the Yampa River.

The above rule is adequately addressed **with the exception of:**
Rule 2.04.7(3), please address this rule.

5. There are fewer existing sediment ponds than PR 7 table, please discuss and call out sediment ponds and their permitting action that may have been reclaimed since PR7

6. Existing stock ponds have decreased from 68 in PR 7 to 55 in PR11, please discuss and call out stock ponds and their permitting action that may have been reclaimed since PR7.

7. Future Life of Mine stock ponds reduced to from 41 in PR7 to 10 in PR11, please discuss.

Trapper Response to Comment 5: Though technically not a sediment pond, the Industrial Waste Pond (IWP) was included as such in PR-7. To maintain consistency, the IWP was added back into the Table 4.8-1 calculation. Thus, back to 41 sediment ponds.

Trapper Response to Comment 6: Over the years more stock ponds have been reclaimed, either deliberately with mine machinery or passively as they filled with sediment over time, than new stock ponds being built. Most of the reclaimed ponds have been on Phase III bond-released lands. For the revised PR-11 Table 4.8-1, a careful count, that included utilization of both aerial photographs and boots on the ground, resulted in the 55-stock pond count.

Trapper Response to Comment 7: Given proposed changes in future mining that includes much more highwall mining, the number of anticipated future stock ponds has significantly decreased. In addition, the 41 stock ponds proposed in PR-9 was probably a significant over estimate based on what was thought would be needed for post mine drainage stabilization. Since then, on the ground experience has shown that rock check dams have worked effectively without the need for multiple stock ponds.

DRMS has the following questions regarding Water Depletion Table (4.8-1), Page 4-172a
The value in PR11 Table for Average Annual Pit dewatering appears to be miscalculated, having ramifications for the Total adjusted Depletion.

8. Please double check the calculation and provide updated information as needed.

Trapper Response to Comment 8: Trapper made a calculation error for pit dewatering. The correct number is 39.87 and is corrected in revised Table 4.8-1 (enclosed). In addition, a sediment pond was added to the evaporative loss section. With these two corrections the final water depletion number changed from 145.77 to 143.50 acre feet.

Culverts Table 4.8-2 page 4-174

9. It appears that Culvert A13 may have been replaced. Please discuss the change from 36 cfs and 36 in diameter in RN7 to 2.4 cfs and 24 in diameter in PR11 and provide updated information as necessary.

Trapper Response to Comment 9: Culvert A-13 is located on the new Life-of-Mine road. It did not replace a former Culvert A-13 at the same location. Historic culvert A-13 was located on the old North A haulroad and no longer exists. We have used the A-13 culvert designation on a new culvert.

Table 4.8-3 page 4-177 Diversion Ditch Table

DRMS notes that the diversion ditch table updated in 2022 April indicates a diversion ditch for East Pyeatt No. 3.

10. In the table submitted with PR11 East Pyeatt No 3 is omitted and replaced with East Pyeatt No.1. Please address the discrepancy.

Trapper Response to Comment 10: The name of East Pyeatt No. 3 was in error on Table 4.8-3 and was corrected to the proper East Pyeatt No. 1. Map M-52 has consistently shown this diversion ditch as East Pyeatt #1.

Table 4.8-6 Sediment Pond Summary page 186a

11. For Deal Pond #2 criteria for the 10 year 24 hour storm event appears different from the current table in the permit submitted with PR9. Please address this.

Trapper Response to Comment 11: The PR-9 pond criteria were for proposed pond construction. PR-11 criteria were for as-as-built pond construction. The pond design was changed significantly from the proposed pond design to the as-built design.

Rule: 2.04.10 Vegetation Information
DRMS December 2022

DRMS understands that the expansion area comprises grazing rangeland consisting of Big Sagebrush and grassland vegetation types as well as cropland parcels as per Map M46.

DRMS understands that a vegetation map (M 48B), was prepared in 2021 based on 2017 aerial imagery and 2021 field mapping. A literature review was conducted establishing the potential for rare and endangered plant species. Table 2.3-26 records the 115 plant species encountered during the field survey. A description of the plant communities mapped in the PR11 expansion area was provided with the revision submitted, the only missing component was the acreage for the wetland subtype.

DRMS understands that wetland delineation mapping occurred in 2022 and was conducted by a certified wetlands professional. The results of this survey were not included in the application submission.

12. Please submit the wetlands delineation mapping referred to in the revised pages submitted and include the acreage for the wetland subtype.

Trapper Response to Comment 12: Enclosed Map M48B is revised to include the mapped jurisdictional wetlands within the PR-11 expansion area. Enclosed permit page 2-122x is revised to include the acreage of the jurisdictional wetlands within the Drainage Bottoms land cover type. Slight adjustments were made to the acreages of several land cover types as a result of adjusting the Drainage Bottoms type to incorporate the wetland subtype mapping. Enclosed page 2-122r is updated to show that the 2022 wetlands mapping has been completed.

Rule: 2.04.11 Fish and Wildlife Resources Information
DRMS November 2022

As per revised page 4-16, a reference was made to Trapper Mine utilizing shrub transplants to restore nesting and hunting habitat. DRMS understands that Trapper no longer utilizes shrub transplants. Shrubs are generally used for Range Sites A and B, with Range Site C (big sagebrush and grass), classified a domestic grazing land where there is no shrub standard as per permit pages 4-112 through 4-119.

13. Please update as necessary the language on page 2.04.11 to reflect Trappers current vegetation reclamation practices regarding shrub transplants for the above referenced page.

Trapper Response to Comment 13: With the approval of PR-9, the shrub density standard was changed to either utilize shrub clumps or achieve a higher density standard (going from 400 stems per acre to 550). Trapper still reserves the right to use either standard, depending on specific circumstances in the field. Trapper acknowledges that we have recently used the higher density standard approach rather than the shrub clump approach.

Rule: 2.04.12 Prime Farmland Investigation
DRMS December 2022

DRMS understands that portions of the expansion area were cropland areas at one time. DRMS does not note a determination regarding the presence or absence of Prime Farmland in the expansion area. Also, Figure 4.5-2 page 4-146 of the permit illustrates cropland parcels.

14. Please address the existence or not, of prime farmland with revised text or point DRMS to that determination in the permit.

Trapper Response to Comment 14: Section 2.6.2.1 details cropland soils and conversely “prime farmland” designations for two soil mapping units at Trapper. Permit page 2-343 details why these soils would not be considered prime farmlands due to lack of irrigation. This determination would be applicable to the PR-11 expansion area as well. For the PR-11 expansion area, Trapper utilized the same internal soil survey units as our original soil survey. Mapping unit 6 occurs in this area and could potentially be considered prime farmland if irrigated. A separate independent evaluation of the same area mapped with the Moffat County NRCS soil survey also demonstrates a similar soil type, map unit 66, as farmland of statewide importance, but not prime farmland. No other soils mapped in the expansion area would be considered prime farmland.

Rule: 2.05.3 (1), (2a), (2b) Permit Area
DRMS December 2022

A Permit area boundary expansion was requested in the application. It appears that the I Pit West expansion comprises a 141.1 acre permit boundary increase into area that comprises the Williams Fork permit and includes two DWR monitoring wells. Also, C Pit expansion where mining has previously occurred, comprises area held jointly in the Williams Fork Mine permit. In total it appears that the overlap with WF permit comprises approximately 1,076 acres. A survey of the proposed expansion area was part of the revised pages submission as were maps showing the expansion area. Detailed narrative of mining and reclamation were submitted as per revised pages for permit Sections 2.3, 2.5, 2.6 2.7 and 3.1.

As discussed above in Rule 3.02.2 (below), the PR11 application requests an increase of 137.10 acres, as well as an increases in affected and disturbed areas having ramification for the performance warranty. It appears from the application form that the increase in surface area and the total permit area acreage are in discrepancy.

Please address the following:

15. Acreages for the phases on mining in C Pit and I Pit West were not included in the discussions.

Trapper Response to Comment 15: Over the next five-year permit term, as demonstrated in the PR-11 application, mining will take place in the C and I-Pit areas between 2023 to 2028. The areas to be stripped were included in the requested 295.0 new acres of disturbance. Table 3.1-3 details proposed yearly stripping acres. Table 1.4-2 also demonstrates the WCB annual stripping projections. They are detailed on the M10 map series by pit and area.

Affected area as defined in DRMS Rules (7), resulting from highwall mining/auger mining (DRMS definition (16)), in the various pits was not included in the submission.

The 26 Oct 2022 question posed to Trapper Mine Inc. is repeated below.

16. The Division has received the PR11 permitting action and reviewed the affected area acreage associated. As DRMS considers the area overlying the underground mining operations associated with the highwall/auger operation as affected area, it appears that the affected area must be increased for these areas over the entire site where highwall mining has occurred in the past, up to the present and through the PR11 Permit term. This would include areas in the following pits, and possibly other historical pits

East Ashmore Pit	C Pit	F Pit	K Pit
L Pit	I Pit	J Pit	

Trapper Response to Comment 16: Affected acreage was calculated for the entire mine site and included all previous and future highwall mining areas. The acreage was based on the projected or actual highwall mining panels as detailed on map series M4 and M10. Only areas under undisturbed, or Phase III bond release were accounted for as additional affected acreage. Areas of the mine that are active pit or disturbance or reclamation not yet Phase III bond released are already accounted for as affected and disturbed acres. The additional affected acreage was calculated at 283.5 acres and will be added to the relevant category on the permit application.

DRMS notes that Trapper estimated the penetration of the highwall miner (PR10), at approximately 1,200 ft. DRMS is aware that this criterion, has to date, been difficult to achieve in the N, I and J pits.

17. Please, as much as possible, ascertain a reasonable average penetration to utilize in calculating the affected areas undermined around the pit outlines as depicted on the M4 Map associated with PR11, as well as for other pits. Please provide that information in the appropriate revised pages.

Trapper Response to Comments 17: Despite the total penetration of the highwall mining not reaching the anticipated 1200 feet, the distance was not reduced for the calculation of the affected acreage. The mining panels are already established on the M4 and M10 map series and would require modification if a different depth were chosen. That would also potentially limit the possibility of actually utilizing maximum projected penetration. No change in depth will be presented at this time.

18. Please see Rule 3.2.2 below, and provide acreages for the various types of disturbance. In the past Table 3-1-3 has indicated disturbed and reclaimed acres. Should areas affected by highwall mining now be included in this table as well?

Trapper Response to Comment 18: Trapper would prefer to not modify Table 3.1-3 with affected acreage. This table has traditionally depicted the same categories of activity as represented on the Annual Reclamation Report form. In this format, the projected disturbance and reclamation can be compared directly to the ARR each year. Affected acreage is not carried or calculated on the ARR form and is only relevant to the DRMS permitting system. The number will be updated as applicable in the future with permit revision actions during the submittal process.

Rule: 2.05.3(3) Mine Facilities
DRMS December 2022

DRMS understands that proposed haulroads will be built in 2023, 2024 and 2025. The new roads will require an engineer's certification once built. The above rule is adequately addressed in permit sections 3.7.2 and 1.4 and with maps M13A, M13B, M13C, M9 and Appendix S **with the exception of:**

19. Please assure that DRMS receives the Engineers Certification in a timely manner.

Trapper Response to Comment 19: It is on Trapper's Colorado Professional Licensed Engineer's tickler file to certify new haulroads as they are constructed.

Rule: 2.05.3(6) Overburden and Blasting Plan
DRMS December 2022

Public notice of blasting was submitted with PR11. DRMS notes that pre blast survey notifications have not been sent to owners near the proposed expansion area since 2003, with the most recent surveys conducted in 1987. With the opening of C Pit and I Pit West a preblast survey notification as per Rule 4.08.2 appears required.

Sage Creek Holdings is not on the pre blast survey information (Table 3.4-1, page 3-28a). Blasting could impact the two groundwater monitoring wells utilized for the Williams Fork Permit. These wells are not listed on the Structures List; Table 3.4-2 page 3-28b. No blasting plan for the expansion area was proposed with the PR11 submission.

20. Please provide a blasting plan for the expansion area.

Trapper Response to Comment 20: Trapper's blasting plan, as outlined in permit Section 3.4, covers the entire mine. There is no need to make a specific blasting plan for the expansion area.

21. Please update the above referenced tables with the additional owners and structures as referenced above.

Trapper Response to Comment 21: As required by the Division, a blasting schedule public notice will be sent to all owners of dwellings and structures inside and within one-half mile of Trapper's permit boundary in February 2023. As part of that public notice submittal, dwelling and structure owners relatively near the proposed C and I Pits will receive an invitation to request a pre-blast survey--including Francis & Louise Lux, John Hogue, Jacob Timmer and Sage Creek Holdings. Enclosed Table 3.4-1 and has been updated to reflect this information. Enclosed Table 3.4-2 is updated to add the Sage Creek Holdings monitor wells. In addition, Map M13A (sheet 1) has been updated to show the Sage Creek Holdings monitor wells.

DRMS understands that C Pit has been previously mined. DRMS also understands that a 4,500,000 LCY overburden stockpile (pages 3-15b and 3-15c) near C pit will be utilized for overburden storage and a temporary spoil pile of 600,000 LCY will be located east of No Name Pond #2 south of the BC haul road.

22. Given possible instability in these area please speak to the stability of the locations for holding large stockpiles, especially with regards to any previously mined areas that the overburden may be placed on.

23. Approximately how long will the stockpiles occupy their temporary locations?

Trapper Response to Comments 22: Trapper contracted with Agapito Associates, Inc. of Denver, Colorado to evaluate the stability of the temporary overburden stockpile designs mentioned above.

Agapito concluded that the designs resulted in stable configurations with the I/J Pits stockpile showing cross section safety factors all exceeding 1.7, while the C Pit cross sections all met or exceeded safety factors of 1.3.

Trapper Response to Comments 23: The stockpiles will remain in place until near the end of the Trapper mine life, anticipated to be in 2028.

Rule 2.05.6(2) Mitigation of Impacts Fish and Wildlife
DRMS December 2022

24. Please provide an official species list from:

<https://ecos.fws.gov/ipac/>

Trapper Response to Comment 24: A review of the above web site provided the following information:

- The only mammal listed was the Gray Wolf (*Canus lupus*). It should be considered a concern only if there is a predator management program in place on the site, which there is not.
- Endangered or Threatened Colorado River fishes, including Bonytail (*Gila elegans*), Colorado Pikeminnow (*Ptychocheilus lucius*), Humpback Chub (*Gila cypha*) and Razorback Sucker (*Xyrauchen texanus*) were mentioned. It was stated that our location does not overlap critical habitat for any of the four.
- The Monarch Butterfly (*Danaus plexippus*) was mentioned as a candidate species. It is found throughout the Western U.S. but no critical habitat is designated.
- The Threatened Ute Ladies'-tresses orchid (*Spiranthes diluvialis*) was mentioned. This species was not observed in the PR-11 Expansion Area, nor has it been found anywhere within the mine permit area. The riparian habitat that this orchid grows in does not exist anywhere in the permit area.
- Two species of birds listed as Threatened, Mexican Spotted Owl (*Strix occidentalis lucida*) and Yellow-billed Cuckoo (*Coccyzus americanus*), occur in Colorado but the Trapper permit area does not overlap critical habitat for these species. Neither species has ever been observed at Trapper.
- Several migratory bird species were listed as "Birds of Conservation Concern", including California Gull (*Larus californicus*), Franklin's Gull (*Leucophaeus pipixcan*), Cassin's Finch (*Carpodacus cassinii*), Evening Grosbeak (*Coccothraustes vespertinus*), Clark's Grebe (*Aechmophorus clarkii*), Western Grebe (*Aechmophorus occidentalis*), Lesser Yellowlegs (*Tringa flavipes*), Willet (*Tringa semipalmata*), Olive-sided Flycatcher (*Contopus cooperi*), Pinyon Jay (*Gymnorhinus cyanocephalus*), Rufous Hummingbird (*Selasphorus rufus*), and Virginia's Warbler (*Vermivora virginiae*). The USFWS concern is primarily nesting disturbance with these bird species. Many of these species do not nest at all in northwest Colorado, including California Gull, Franklin's Gull, Clark's Grebe, Lesser Yellowlegs, Willet and Rufous Hummingbird. Other species nest in the general area but nesting habitat is not found within the Trapper permit area. These species include Western Grebe (large water bodies not found at Trapper), Cassin's Finch, Evening Grosbeak and Olive-sided Flycatcher (higher elevation montane habitat) and Pinyon Jay (pinyon-juniper nesting obligate). Only Virginia's Warbler nests within the Trapper permit boundary. They are widespread throughout the Yampa Valley in primarily mountain brush habitat. Virginia's Warblers were not found in the PR-11 permit expansion area.
- Bald Eagle (*Haliaeetus leucocephalus*) and Golden Eagle (*Aquila chrysaetos*) are no longer listed as "Birds of Conservation Concern", but were mentioned because of their inclusion on the

“Bald and Golden Eagle Protection Act.” These species nest in the local area and management of both is addressed in the permit document.

DRMS December 2022

25. Please address the concerns related to the 7 November 2022 letter from History Colorado as it relates to listed archeological sites and provide information as to Trapper Mine Inc’s. plan to protect any sites listed or eligible for listing as determined by SHPO.

Trapper Response to Comment 25: See comment number 3. Mitigation of archeological sites will be handled per section 4.1.1 of the permit. Concerning sites located in I West-Pit if they are to be disturbed, a mitigation plan has been developed with Metcalf Archeological Consultants and will be implemented if needed.

Rule 4.05.15 Water Rights

DRMS December 2022

Augmentation table (Table 4.8-1 page 4-172a), shows the water depletion calculation. The Water Rights Map M31 does not appear to show the location of the two monitoring wells referenced in previous adequacy questions.

Trapper Response to Comment: Regarding both Table 4.8-1 and Map M31, monitoring wells do not affect water balances as they do not produce water. None of Trapper’s monitoring wells are included as part of the Table 4.8-1 water depletion calculations; likewise, monitoring wells do not show up on Map M31 since they do not affect water production or water rights.

Rule 2.10 Maps and Plans

DRMS December 2022

The above rule is adequately addressed **with the exception of:**

26. Surface ownership map M1 and page 1-15 do not coincide exactly, BLM is on the surface ownership list but on the map is just shown as USA.

27. Pit limits for I Pit West are not shown on sheet 1 of the Worst Case Map M6, please update the map to show the pit limits.

28. Is the legend correct on Map M51, Drainage Control and Sediment Plan when it calls out two years plus growth, please explain as this appears to be significantly more mature reclamation and appears to be a vague classification.

29. Please clarify the color coding on Figure 2.7-15g page 2-414p), as at West Buzzard #3 red circles are not defined, and the pond appears to be historic (orange), and is labeled “proposed” which would be purple according to the legend.

Trapper Response to Comment 26: Moffat County land ownership records list these lands as being owned by the “United States of America.” The Bureau of Land Management is the administering agency of these lands and the designated contact for communication purposes on page 1-15.

Trapper Response to Comment 27: I West-Pit is not included on M6, as the pit will not be disturbed or active during the WCB scenario time period in 2023. Therefore, calculation for its surface disturbance and regrade are not included or shown under the WCB scenario.

Trapper Response to Comment 28: Section XII of Appendix Q describes how curve numbers for SEDCAD modeling were determined. The 2+ years growth category is correct on Map M51.

Trapper Response to Comment 29: The color coding appears to be slightly off. The figure is representing that NPDES 006 and West Buzzard #3 pond were historic features. West Buzzard #3 pond

was left as a permanent impoundment during the bond release process many years prior. West Buzzard #1 and #2 were reclaimed. The pond is listed as proposed, as Trapper intends to modify the impoundment for more capacity. Modelling and proposed designs are included in PR-11 as App. Q materials for this pond modification.

Rule 3.02.2 Performance Bond
DRMS December 2022

DRMS understands that additional disturbance was requested for PR11 in the original application. DRMS also notes that in PR10 206.7 acres were approved for disturbance and that pre TR132 Trapper has utilized 171.1 acres of the 206.7 requested, issuing TR132 utilized 204.92 acres of the PR10 request, leaving 1.78 acres of the PR10 request. As discussed above in Rule 2.05.3 the PR11 application requests an increase of 137.10 acres, as well as an increases in affected and disturbed areas. Increase in disturbed and affected area bears on the performance warranty. It appears from the application form that the increase in surface area and the total permit area acreage are in discrepancy permit boundary.

DRMS's CIRCES cost estimate indicated the amount required for reclamation associated with PR11 to be \$44,387,807, not including the costs associated with acres reclaimed and not yet bond released (90.4 acres RNYBR). DRMS calculated the costs associated with RNYBR acres to be \$2,869,700.58. The total cost for reclamation associated with PR11 is **\$47,248,508**. DRMS notes that as of 30 October 2022 Trapper Mine Inc's. bond amount was increased to \$45,100,000.00. The cost of reclamation for PR11 is **\$2,148,508 more than the current liability held**.

DRMS has provided the Draft Cost Estimate for reclamation associated with PR11 to Trapper Mine for comment and consideration with this adequacy review. This draft will be updated once the following questions are clarified.

DRMS has the following questions regarding Appendix A as submitted with the application and a question regarding surface area disturbance:

30. In Table A-10.10 topsoil pile G06-DG is listed twice with two different volumes. Please update the table and provide as updated revised page.

31. Please reconcile the following acreages and submit as revised pages and an updated application form.

- *Total Permit Area*
- *Affected Area*
- *Disturbed area*
- *Reclaimed but not released acreage*

Trapper Response to Comment 30: The pile G06-DG is represented twice at different volumes, as those are the amounts needed from the pile to different areas. The topsoil is primarily being used to reclaim Deal 1 and 2 pond.

Trapper Response to Comment 31: The total existing permit area for Trapper Mine is 11,160.83 acres. The PR-11 expansion is for an additional 137.1 acres. The new total permit area should be 11,297.93 acres. This is based on the legal description within the Trapper Mine permit (page 1-68). This acreage may be more or less. The DRMS permit system shows this acreage at 11,157.0 acres in the application form for PR-11, the addition of the 137.1 acres of new permit area gave a value of 11,294.10. I am unsure why there is a discrepancy.

The affected of acreage of Trapper mine will increase by 578.5 acres which includes 295.0 acres of requested new surface disturbance and an additional 283.5 acres of highwall miner panels under undisturbed and Phase III bond released lands.

The disturbed area will increase by 295.0 acres of requested new surface disturbance for pit advancement not already approved by other revision actions.

The acres reclaimed and not yet bond released have been calculated from the proposed 2022 ARR values. The ARR calculations show that 885.8 acres of reclamation are currently present at the site that have not attained any level of bond release. The approval of SL-23 in January 2022 is included in this calculation. The calculations for the bonding cost of RNYBR, based on Trapper's App. A are attached as attachment 1 to this letter for the Divisions' reference in their own final calculation.

Trapper will have forthcoming comments on the draft CIRCES run.

Rule 4.05.6 and 4.05.9 Sediment Ponds
DRMS December 2022

DRMS's understands that in East and West Buzzard drainages additional ponds are proposed (one in each drainage), and additional NPDES monitoring points are proposed.

DRMS finds that the SEDCAD modelling provided with the PR11 submission to be accurate with the exception of:

32. Stage storage curves do not track the Capacity Table as output in the modelling.

Trapper Response to Comment 32: A review of the East and West Buzzard SEDCAD modeling by Trapper personnel and a SEDCAD consultant found no concerns with the comparison between the stage storage curves and capacity tables. Confusion may be related to the elevation-capacity-discharge table beginning at 0 at the top of the 60% sediment clean out level. Modeling for the capacity table begins at this elevation rather than the bottom of the pond as given in the stage storage curve.

Rule 4.05.13 Surface and Groundwater Monitoring
DRMS December 2022

Trapper Mine has a robust surface and groundwater monitoring program as outlined in Sections 4.8.5.1 and 4.8.5.2 of the permit. Revised pages regarding surface water sampling, water quality updates, groundwater data and the additional sampling sites in the PR11 expansion area adequately address this rule **with the exception of:**

33. Well P8 is indicated in the PR11 submission to be sampling the 2nd White Sandstone, while the current permit page shows Well P8 to be drilled in the 3rd white sandstone. Please clarify.

Trapper Response to Comment 33: Trapper corrected the discrepancy on the revised and enclosed Table 2.7-20 to change the 2nd White Sandstone designation to the correct Third White Sandstone designation.

Rule 4.05.14: Transfer of Wells
DRMS December 2022

Two groundwater monitoring wells for monitoring water level in the Twenty Mile and Middle Sandstone Layers on the Williams Fork Permit are located in the expansion area.

34. Please consider and discuss the possibility of transferring these wells to Trapper Mine Inc's jurisdiction.

Trapper Response to Comment 34: The owner of these monitoring wells continues to monitor them as part of their mine permit obligations. Therefore, it would be premature for Trapper to have the wells transferred to our ownership. Trapper presently intends to avoid direct disturbance of these wells on the western extent of I West-Pit.

Rule 4.08: Use of Explosives (Notice of Blasting Schedule)
DRMS December 2022

DDRMS notes that Trapper has an active and conservative blasting program as discussed in Permit Section 3.4. Submitted with the PR11 application were:

- Blasting Public Notice
- Structure List
- Per blast survey information

35. As per Rule 4.08.2(1) please send out a pre blasting survey 30 days prior to blasting to structure owners in the PR11 expansion area.

Trapper Response to Comment 35: Please see response to Comment 21.

Rule 4.14 Backfilling and Grading, AOC
DRMS December 2022

This rule is addressed in Trapper Mine's reclamation plan and as per the above rule 2.05.4 and in Section 3.5 of the Trapper permit.

DRMS considered Pre Mining, Post Mining, Cross Sections and Sediment Control maps when evaluating the above mentioned rule. Upon comparing the M3 series of maps with the M12 series submitted with PR11, Post mining Topography in C Pit appears to diverge notably from Pre Mining Topography.

DRMS notes a less defined drainage in the D Pit from previous PMT.

DRMS poses the following questions:

36. C Pit Crosssection E 1409000 shows an approximately 50 foot increase in elevation for the Post Mine surface between 439500N and 409000N, please explain why topography is not more uniform and aligning better with the premine scenario.

37. C Pit Crosssection E 140700 shows three undulations of between 25 and 50 foot increases in elevation for the Post Mine surface between 1408800 E and 1406800E, please explain why topography is not more uniform.

Trapper Response to Comments 36 and 37: Given that the C Pit area has been mined, reclaimed and Phase III bond-released, the comparison of grading AOC should be between the currently approved M12 map and the PMT in the proposed M12 map submitted in PR-11, rather than comparing against the M3 map. With this comparison the elevation differences are much less. The elevations are slightly higher in the proposed PMT because not all overburden could be replaced in the boxcut because of anticipated overburden swell.

L Pit PMT diverges from previous scenario. The drainage corridor EMF' shifting to the east for most of its length before it shifts west to confluence with EMF2. The EMF2 drainage shifts to the east for a short distance at the bottom of the drainage. The shift of EMF' at contour 7450 and 7400 could be problematic during peak flows.

38. Please discuss these changes as they relate to the possibility of having excess spoil and to high flow events.

Trapper Response to Comment 38: With the PR-11 application, two additional cuts are proposed for L Dip-Pit. This change has moved the drainage and AOC variance to the east. Trapper does not anticipate any difficulties in this drainage configuration. The shift at the top of the watershed should have a negligible effect on peak flows or erosional stability as it is high in the watershed. Appropriate check dams and other BMP's will be implemented in the drainage to minimize instability until sufficient vegetation is established.

Please get back to us with any questions, comments or concerns.

Sincerely,

A handwritten signature in cursive script, appearing to read "Graham Roberts", with a long horizontal flourish extending to the right.

Graham Roberts
Environmental Supervisor
Trapper Mining Inc.

c PR-11 binder
File 109.2.3.4

Attachment 1

Proposed PR-11 RNYBR Calculation			
Net Increase in Affected Land with PR11 (Acres)	578.5		
Surface Disturbance acres	295		
Sub-Surface HWM acres	283.5		
Trapper's Open Acreage Table 1.4-1 (Acres)	2307.8		
Reclamation Not Yet Bond Released (RNYBR)			
Reclamation Not Yet Bond Released acres	885.8	(2022 ARR Reclaimed acres)	
Trapper's PR11 Costs Table 1.4-1		\$/Acre	
Topsoil	\$ 7,333,420.00	\$ 3,177.67	
Revegetation	\$ 2,067,465.00	\$ 895.86	
Site Maintenance	\$ 208,108.93	\$ 90.18	
2022 ARR Acreage (Proposed)			
Acres Disturbed	6902.3		
Acres Topsoiled	4692.9		
Acres Revegetated	4692.9		
Untopsoiled acres	2209.7		
Un-revegetated Acres	2209.7		
%Un-topsoiled of RNYBR Affected Acres Proposed	25%		
% Un-revegetated of RNYBR Affected Acres Proposed	25%		
Proposed New Direct Cost for RNYBR Area	Acres	\$/Acre	Total Cost
Topsoil Acres	221.5	\$ 3,177.67	\$ 703,694.37
Revegetation of RNYBR affected land	221.5	\$ 895.86	\$ 198,388.13
Re-seed RNYBR revegetated area (Assume 17.5% Failure Rate)*	664.4	\$ 156.78	\$ 104,153.77
Site Maintenance	885.8	\$ 90.18	\$ 79,878.19
Cost summary item RNYBR		Total Direct	\$ 1,086,114.45
*17.5% of revegetation cost per acre			